What is claimed is:

1. A radiation source comprising an anode and a cathode that are configured and arranged to create a discharge, within a discharge element, in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate electromagnetic radiation, said radiation source comprising a plurality of discharge elements.

2. A radiation source according to claim 1, wherein each discharge element is movable in line with an optical axis of an apparatus with which said radiation source operates.

3. A radiation source according to claim 1, wherein said discharge elements are arranged around a rotation axis of said radiation source.

4. A radiation source according to claim 1, wherein the anode of a first discharge element is movable in line with the cathode of a second discharge element.

5. A radiation source according to claim 1, wherein at least part of each discharge element is brought in contact with a liquid before initiating a discharge in said element so as to cover internal surfaces of said element with said liquid.

6. A radiation source comprising an anode and a cathode that are configured and arranged to create a discharge in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate electromagnetic radiation, said radiation source comprising a triggering device configured to initiate said discharge by irradiating a surface proximate said discharge space with an energetic beam.

7. A radiation source according to claim 6, wherein said energetic beam is a beam of electromagnetic radiation.

8. A radiation source according to claim 7, wherein said energetic beam is a laser beam.

9. A radiation source according to claim 6, wherein said energetic beam is a beam of charged particles.

10. A radiation source according to claim 6, wherein said energetic beam irradiates an area on the surface of an anode.

11. A radiation source according to claim 6, wherein said energetic beam irradiates an area on the surface of an anode adjacent to an emission aperture.

12. A radiation source according to claim 6, wherein said energetic beam irradiates an area on the surface of a cathode.

13. A radiation source according to claim 6, wherein said energetic beam irradiates a target structure adjacent to a discharge area.

14. A radiation source according to claim 13, wherein said target structure comprises an element selected from the group consisting of: xenon (Xe), tin (Sn), lithium (Li), indium (In) and iridium (Ir).

15. A radiation source according to claim 13, wherein said target structure forms part of said cathode.

16. A radiation source according to claim 13, wherein said target structure forms part of said anode.

17. A radiation source according to claim 13, wherein the target structure is electrically isolated from said cathode.

18. A radiation source according to claim 13, wherein the target structure is electrically isolated from said anode.

19. A radiation source according to claim 6, wherein the surface irradiated by said energy beam comprises a wicking structure configured to transport a liquid towards said discharge space from a liquid reservoir in contact with said wicking structure.

20. A radiation source according to claim 19, wherein the wicking structure comprises structures leaving spaces therebetween so as to transport said liquid by capillary forces.

21. A radiation source according to claim 20, wherein said wicking structure comprises a regular arrangement of substantially cylindrical structures.

22. A radiation source according to claim 20, wherein said wicking structure comprises a regular arrangement of substantially spherical structures.

23. A radiation source according to claim 19, wherein the radiation source further comprises a pressurizer to exert a pressure upon the liquid within the wicking structure.

24. A radiation source according to claim 23, wherein the pressurizer is configured to exert the pressure in a pulsed fashion.

25. A radiation source according to claim 5, wherein said liquid comprises an element selected from the group consisting of: xenon (Xe), tin (Sn), lithium (Li), indium (In) and iridium (Ir).

26. A radiation source according to claim 19, wherein said liquid comprises an element selected from the group consisting of: xenon (Xe), tin (Sn), lithium (Li), indium (In) and iridium (Ir).

27. A method for operating a radiation source, constructed to have a low inductance, and comprising an anode and a cathode that are configured and arranged to create a discharge in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate electromagnetic radiation, said method comprising generating an initial discharge followed by operating said radiation source so as to allow successive discharges to occur due to a substantially self-regulated oscillation within said discharge source.

28. A radiation source according to claim 27, wherein material for discharge is provided by evaporation at the site of a cathode spot.

29. A radiation source according to claim 28, wherein said initial discharge is initiated by increasing the current through said cathode spot.

30. A radiation source according to claim 27, wherein said initial discharge is initiated by irradiating a surface proximate said discharge space with an energetic beam.

31. A radiation source according to claim 27, wherein said successive discharges are initiated by irradiating a surface proximate said discharge space with an energetic beam.

32. A lithographic projection apparatus comprising:

a radiation source comprising an anode and a cathode that are configured and arranged to create a discharge, within a discharge element, in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate a projection beam of radiation, said radiation source comprising a plurality of discharge elements;

a support structure configured to hold a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate; and

a projection system configured to project the patterned beam onto a target portion of the substrate.

33. A lithographic projection apparatus according to claim 32, wherein each discharge element is movable in line with an optical axis of an apparatus with which said radiation source operates.

34. A lithographic projection apparatus according to claim 32, wherein said discharge elements are arranged around a rotation axis of said radiation source.

35. A lithographic projection apparatus according to claim 32, wherein the anode of a first discharge element is movable in line with the cathode of a second discharge element.

36. A lithographic projection apparatus comprising:

a radiation source comprising an anode and a cathode that are configured and arranged to create a discharge in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate a projection beam of radiation, said radiation source comprising a triggering device configured to initiate said discharge by irradiating a surface proximate said discharge space with an energetic beam;

a support structure configured to hold a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate; and

a projection system configured to project the patterned beam onto a target portion of the substrate.

37. A lithographic projection apparatus according to claim 36, wherein said energetic beam irradiates an area on the surface of an anode.

38. A lithographic projection apparatus according to claim 36, wherein said energetic beam irradiates an area on the surface of an anode adjacent to an emission aperture.

39. A lithographic projection apparatus according to claim 36, wherein said energetic beam irradiates an area on the surface of a cathode.

40. A lithographic projection apparatus according to claim 36, wherein said energetic beam irradiates a target structure adjacent to a discharge area.

41. A lithographic projection apparatus according to claim 36, wherein the surface irradiated by said energy beam comprises a wicking structure configured to transport a liquid towards said discharge space from a liquid reservoir in contact with said wicking structure.

42. A device manufacturing method comprising:

providing a projection beam of radiation using a radiation system comprising a radiation source comprising an anode and a cathode that are configured and arranged to create a discharge, within a discharge element, in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate a projection beam of radiation, said radiation source comprising a plurality of discharge elements;

using a patterning device to endow the projection beam with a pattern in its cross-section;

projecting the patterned beam of radiation onto a target portion of a substrate.

43. A device manufacturing method comprising:

providing a projection beam of radiation using a radiation system comprising a radiation source comprising an anode and a cathode that are configured and arranged to create a discharge in a substance in a discharge space between said anode and said cathode to form a plasma so as to generate a projection beam of radiation, said radiation source comprising a triggering device configured to initiate said discharge by irradiating a surface proximate said discharge space with an energetic beam;

using a patterning device to endow the projection beam with a pattern in its cross-section;

projecting the patterned beam of radiation onto a target portion of a substrate.